

FIG. 1A

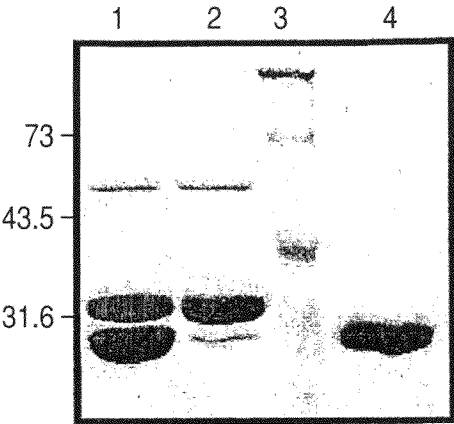


FIG. 1B

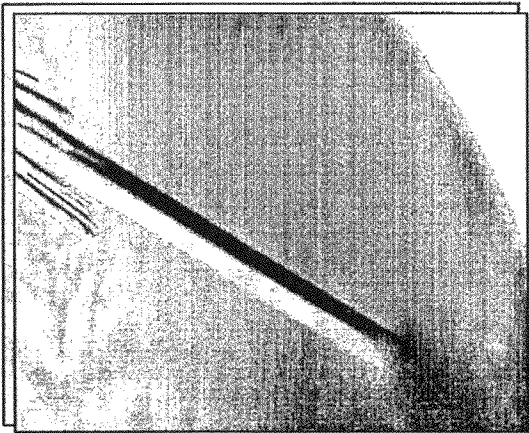
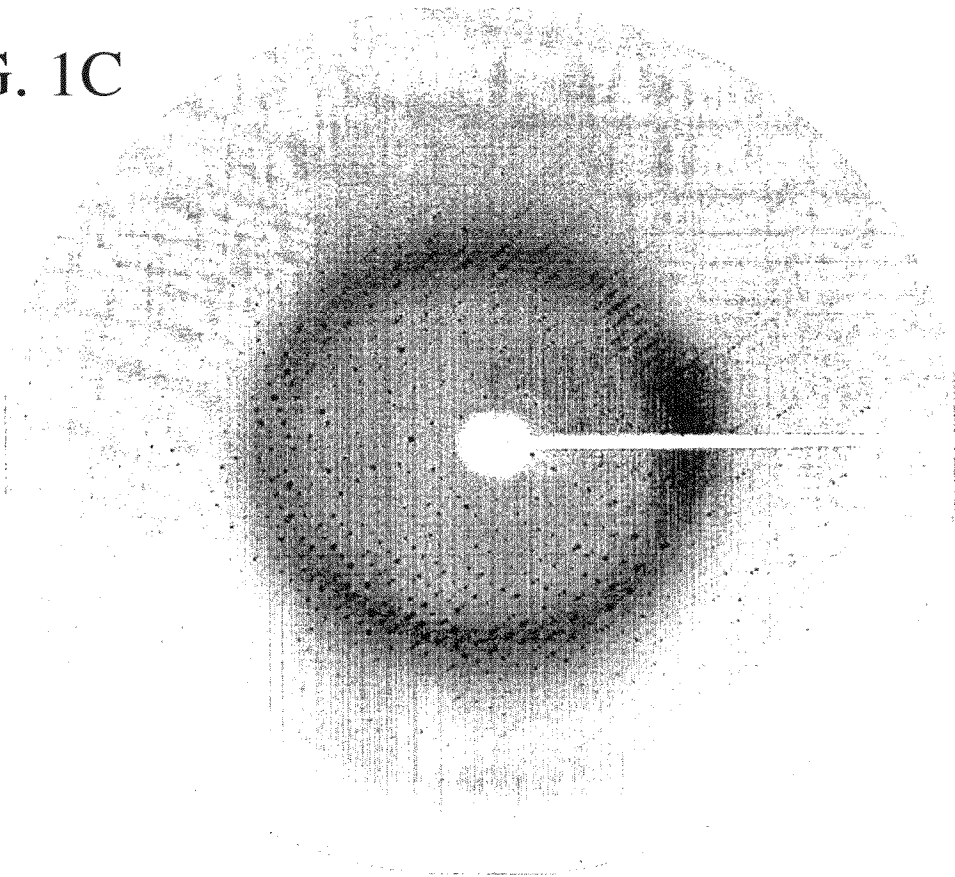


FIG. 1C



REPLACEMENT SHEET

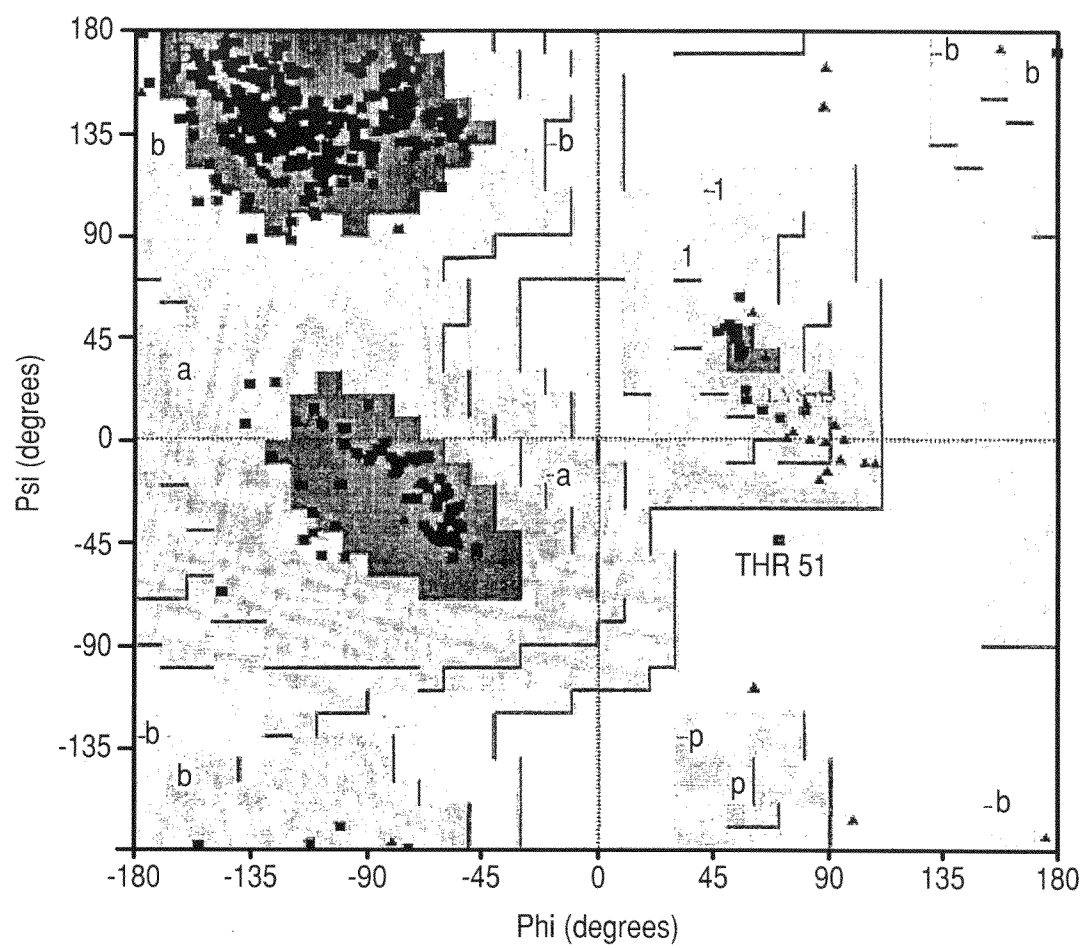


FIG. 1D

FIG. 2B

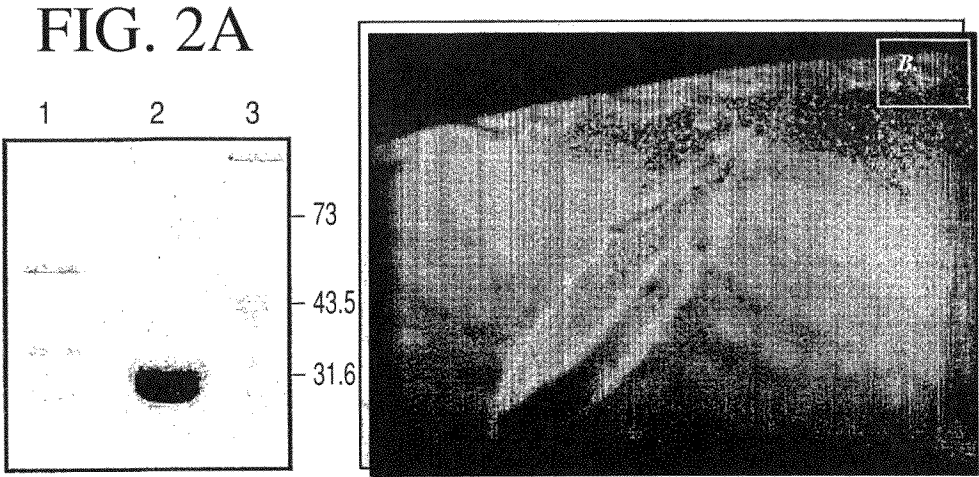
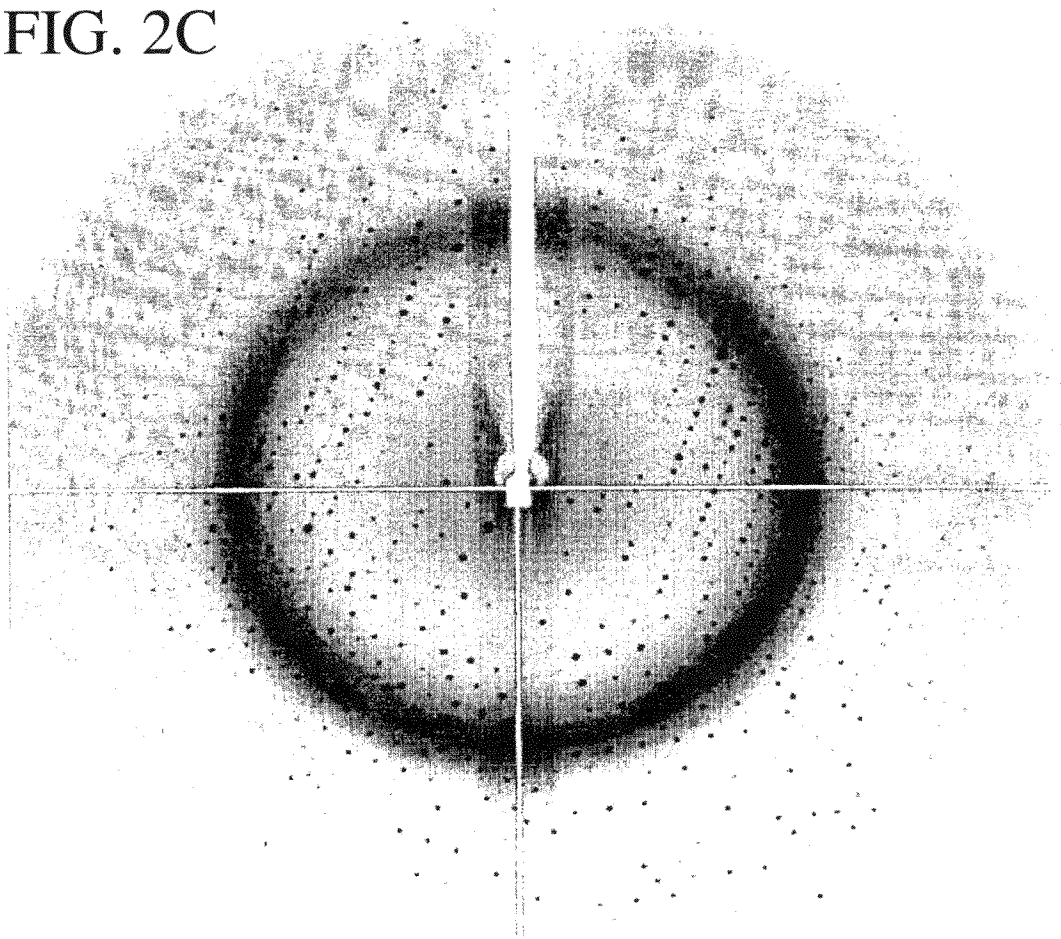


FIG. 2C



REPLACEMENT SHEET

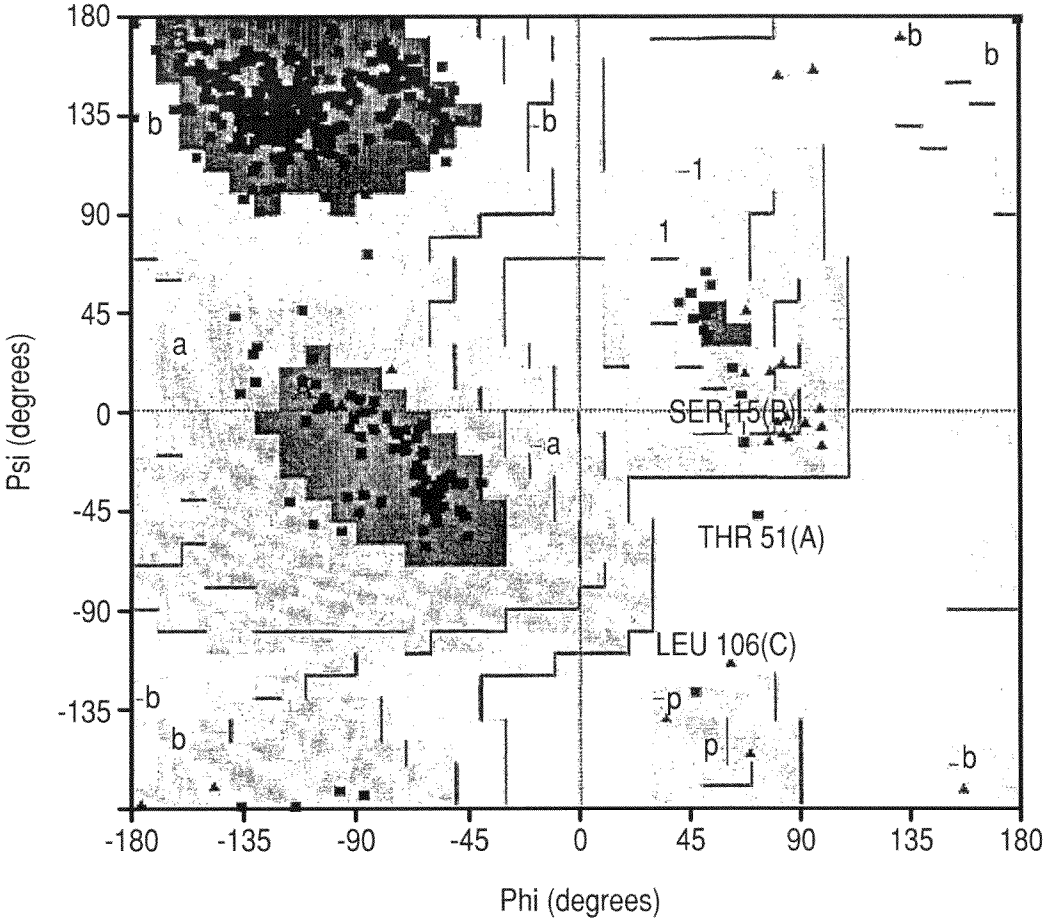


FIG. 2D

REPLACEMENT SHEET

FIG. 3A

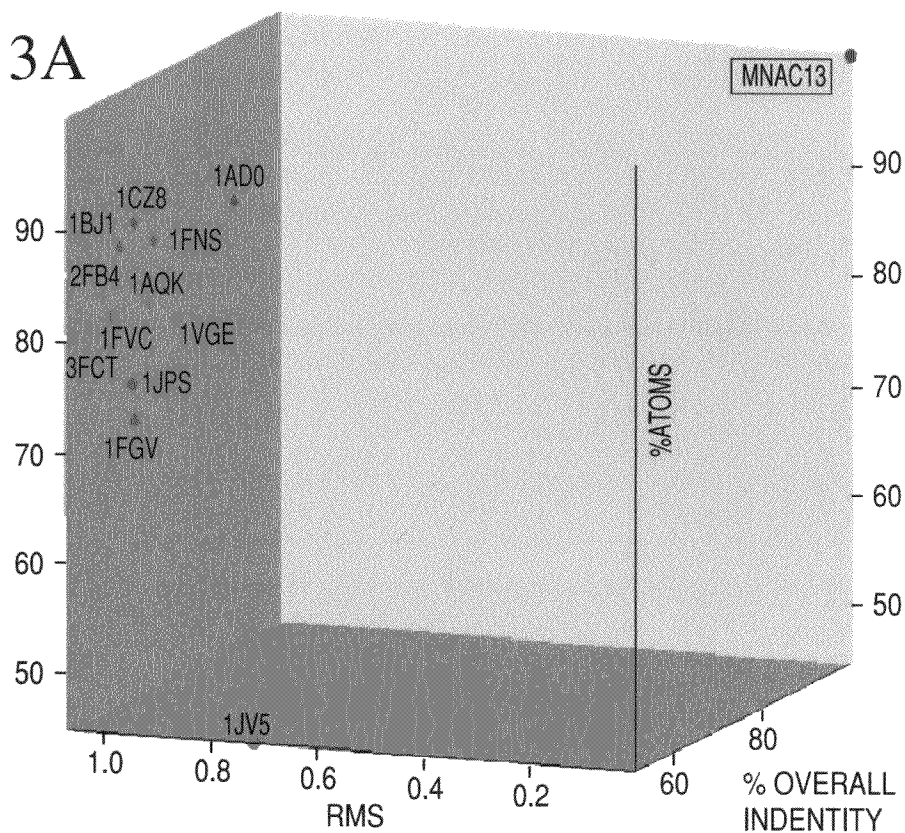
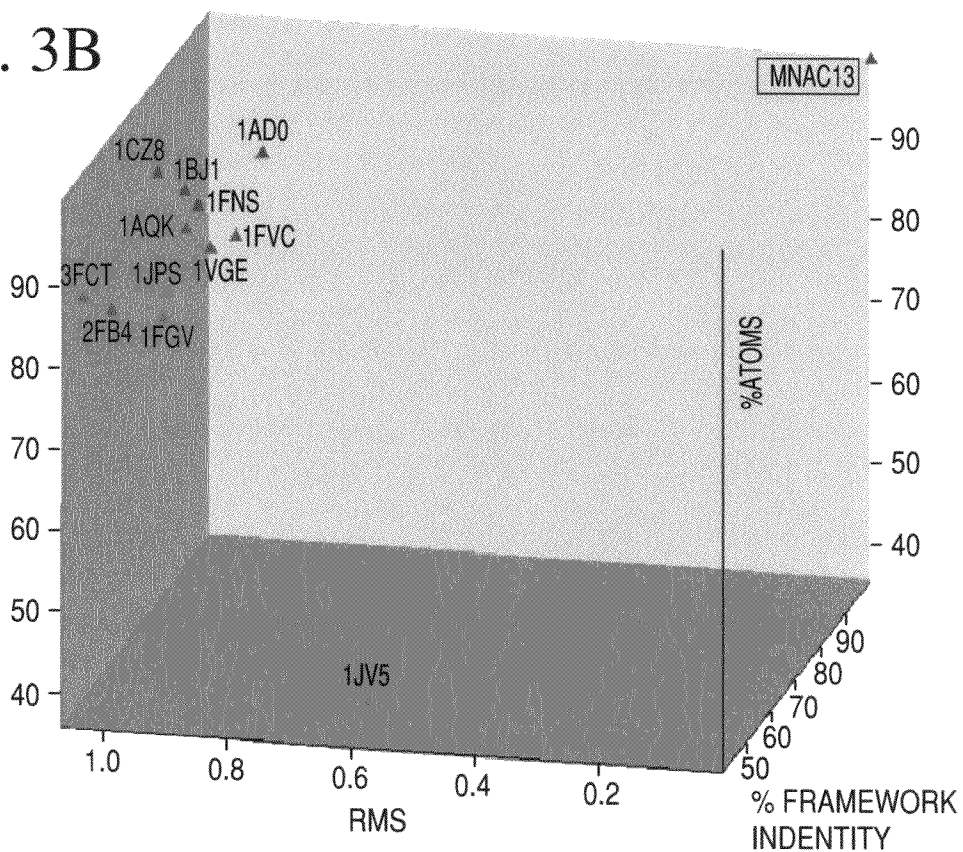


FIG. 3B



REPLACEMENT SHEET

FIG. 3C

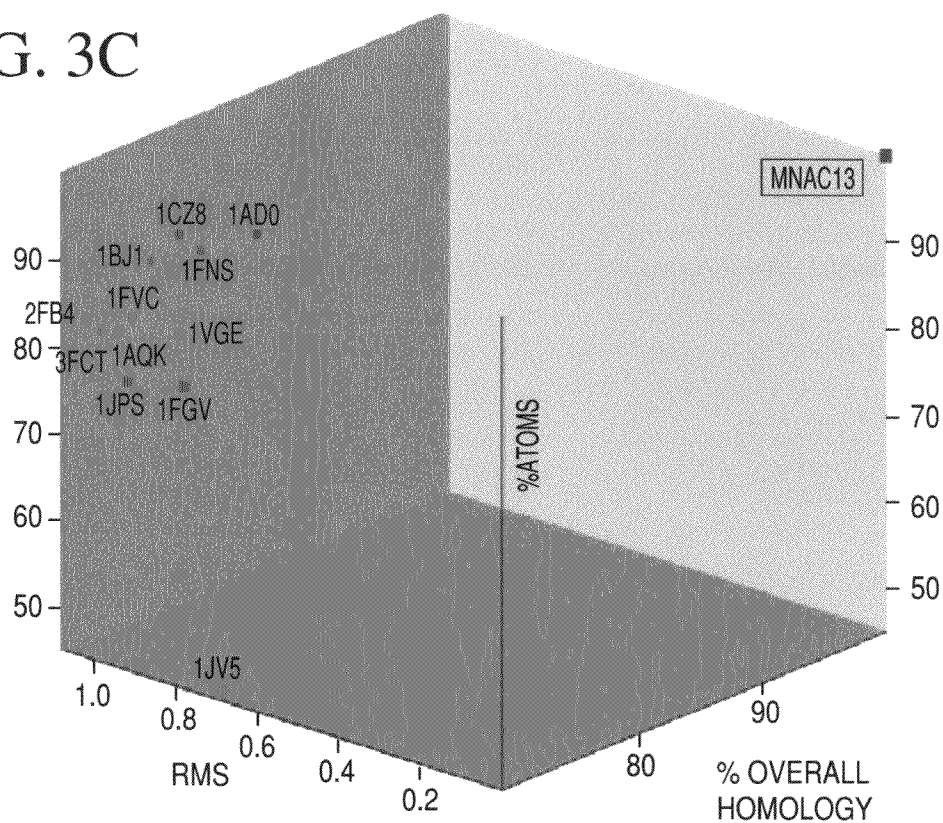
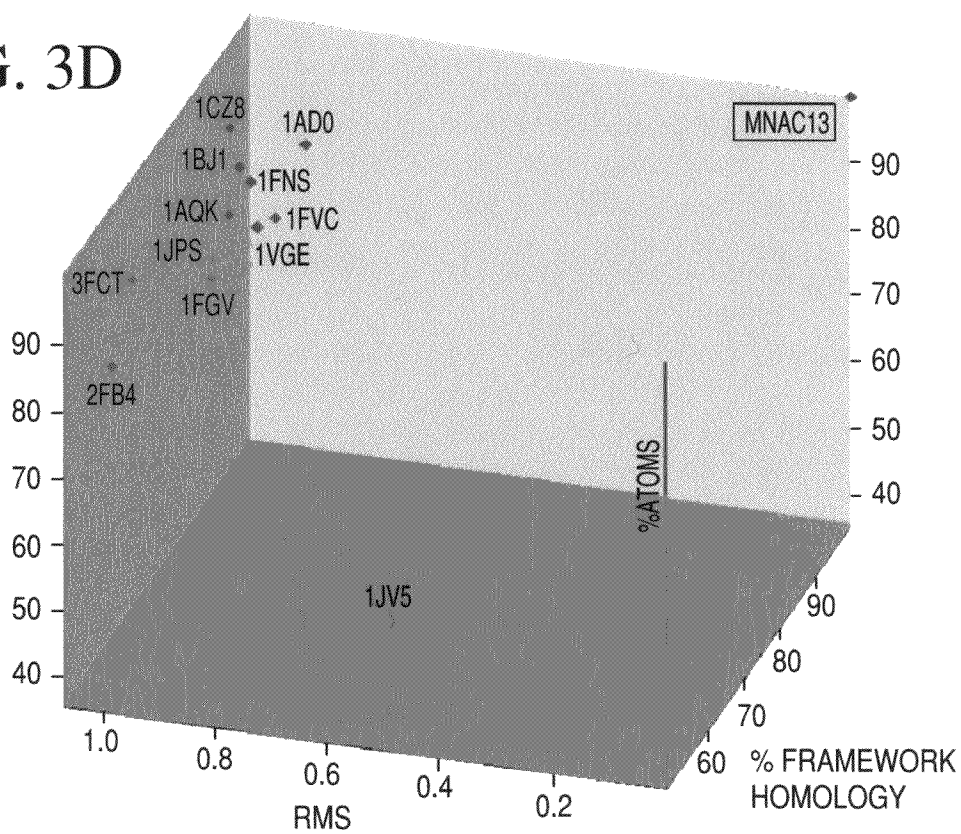


FIG. 3D



REPLACEMENT SHEET

Identity with MNAC13

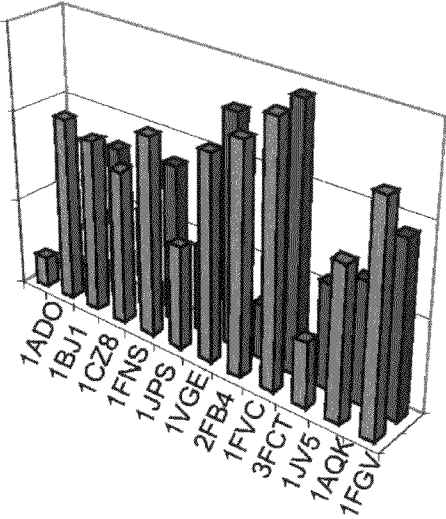


FIG. 3E

Homology with MNAC13

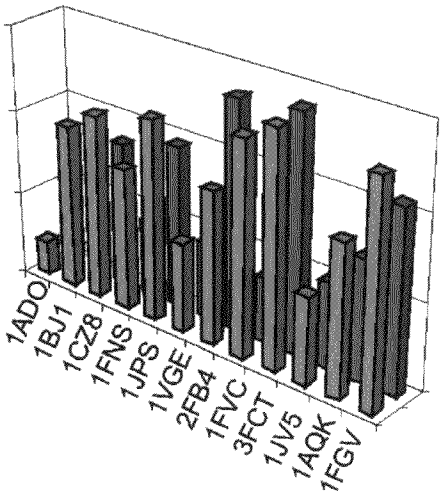


FIG. 3F

REPLACEMENT SHEET

FIG. 3G

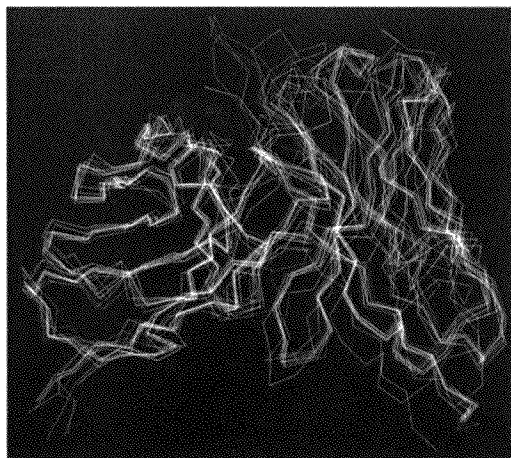


FIG. 3H

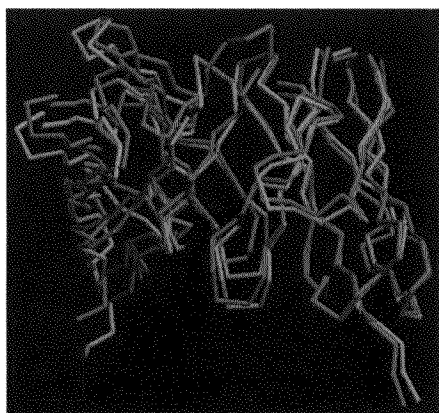


FIG. 3I

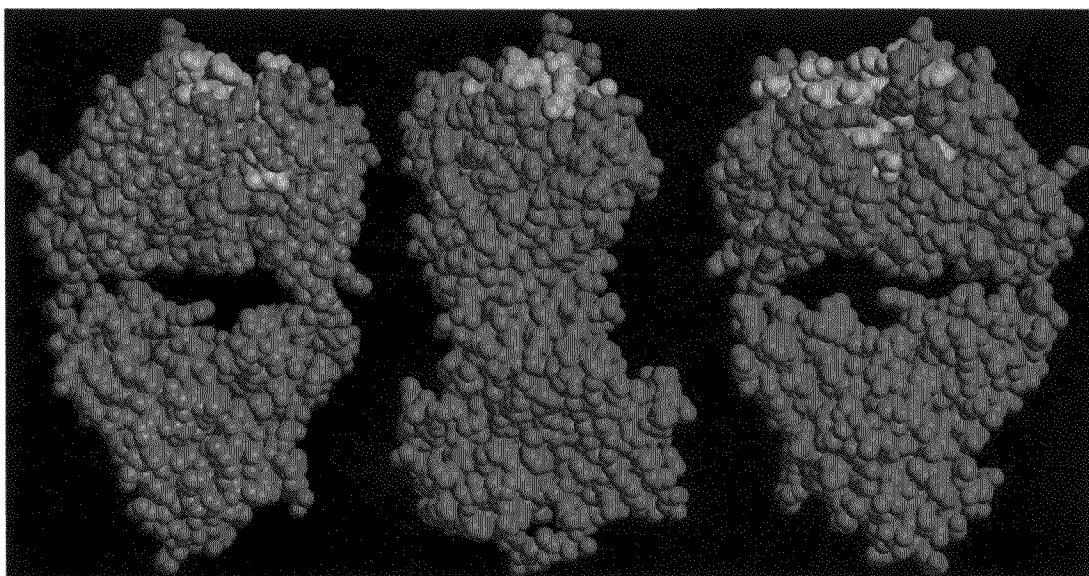
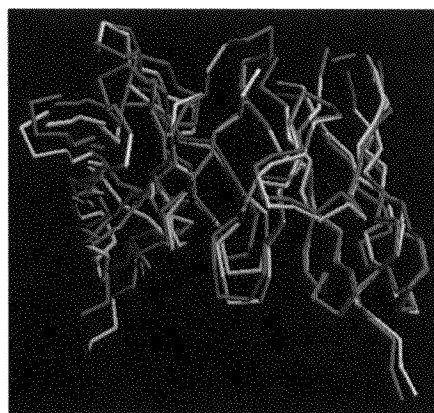


FIG. 3J

REPLACEMENT SHEET

FIG. 4A

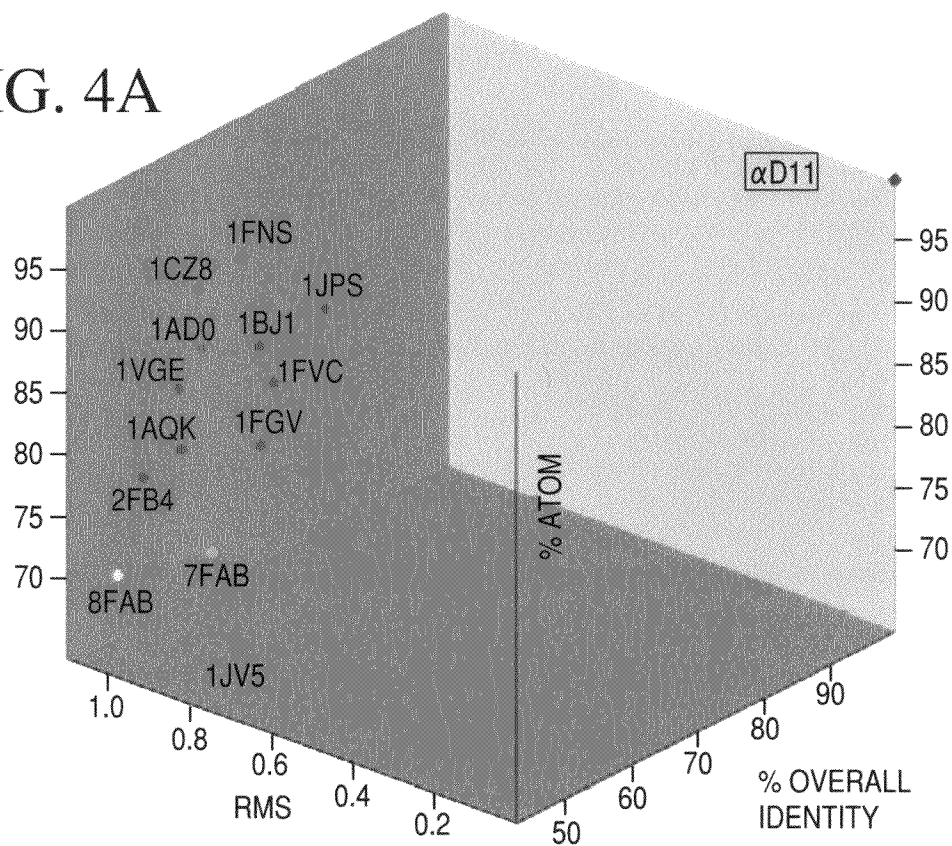
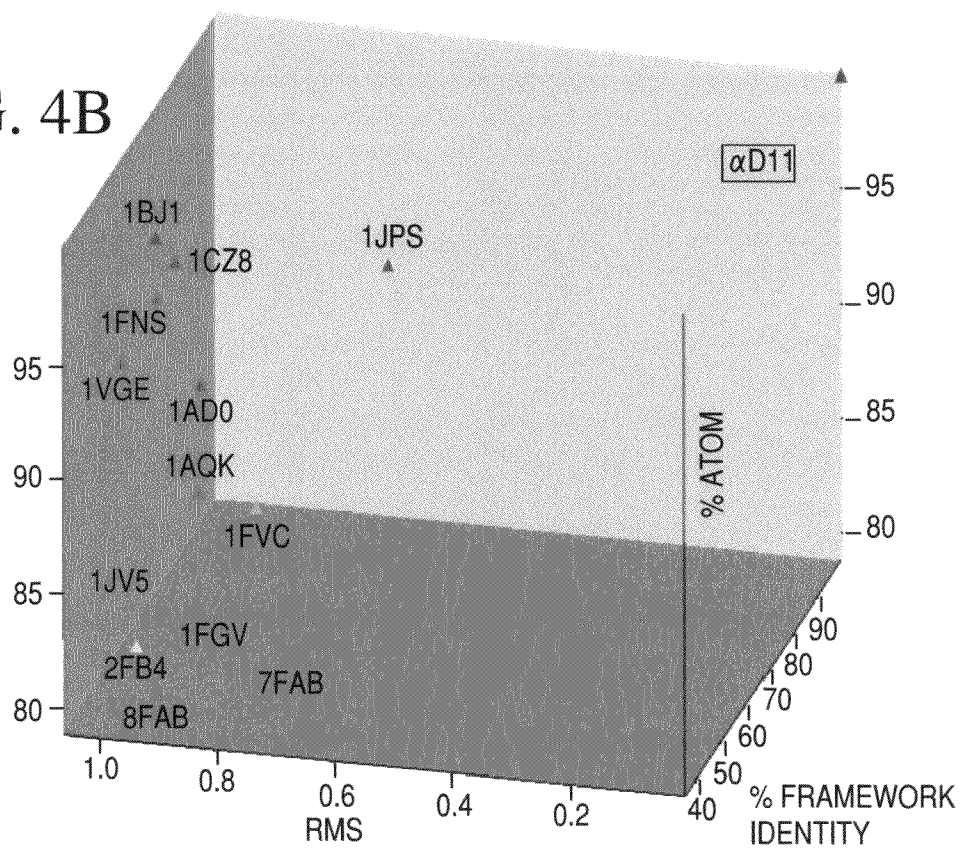


FIG. 4B



REPLACEMENT SHEET

FIG. 4C

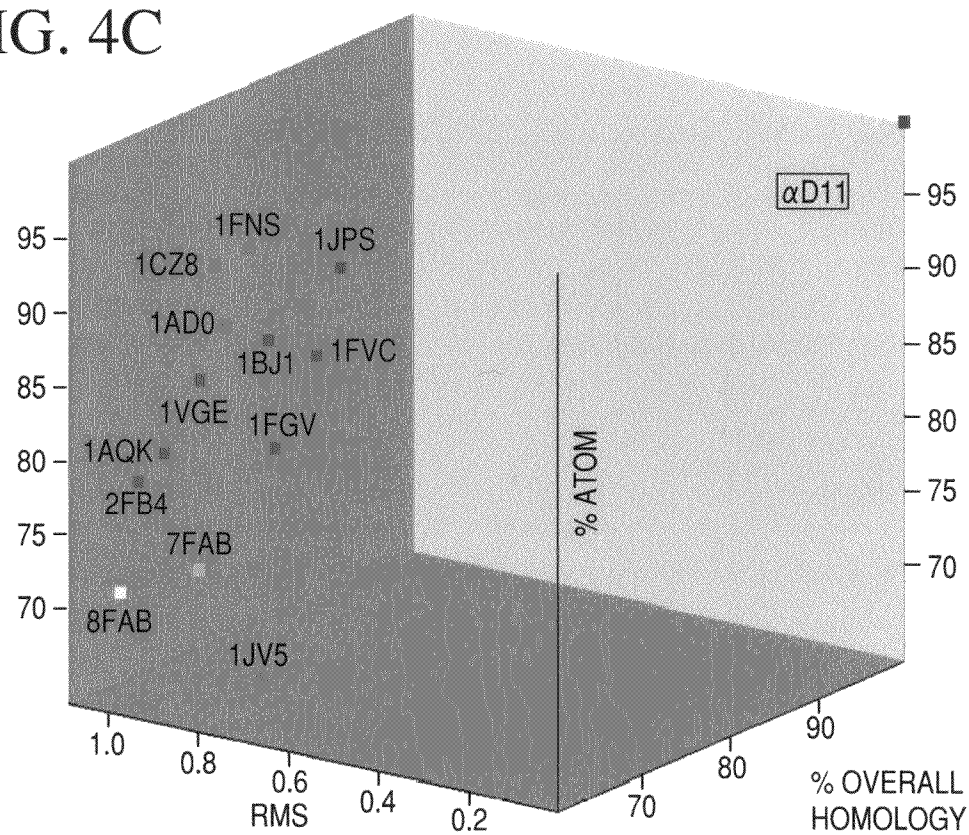
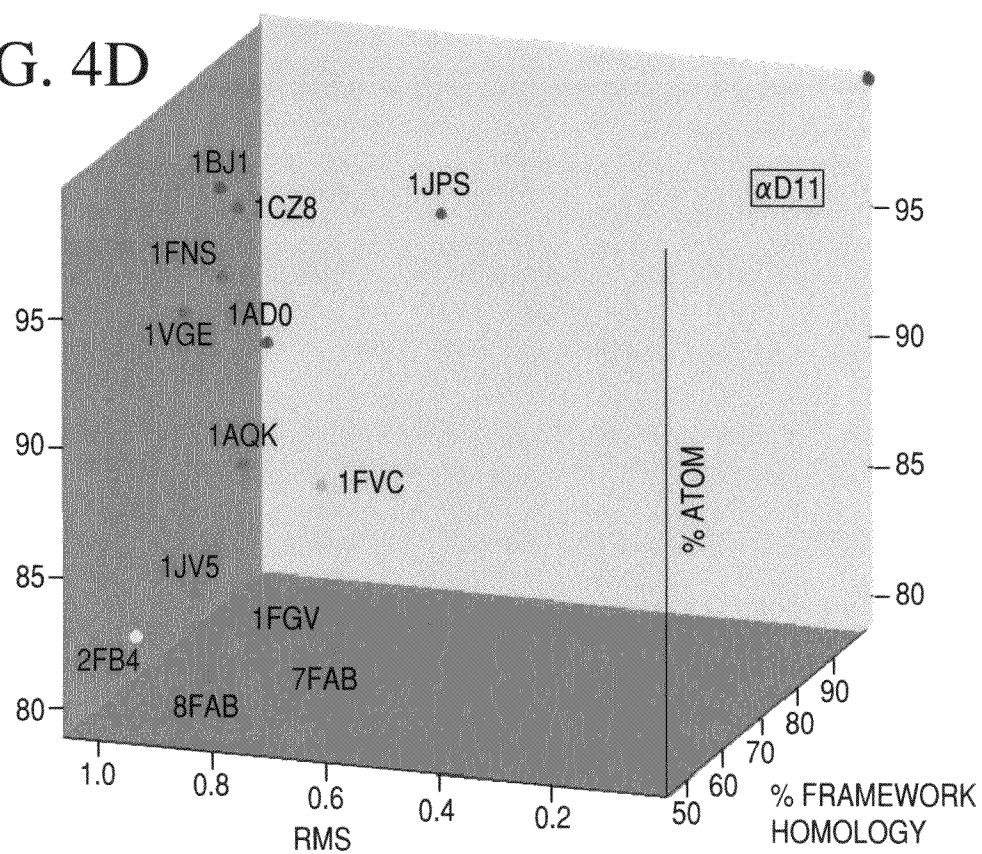


FIG. 4D



REPLACEMENT SHEET

Identity with α D11

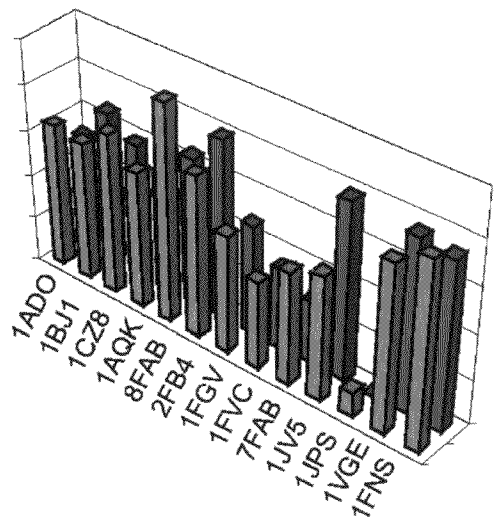


FIG. 4E

Homology with α D11

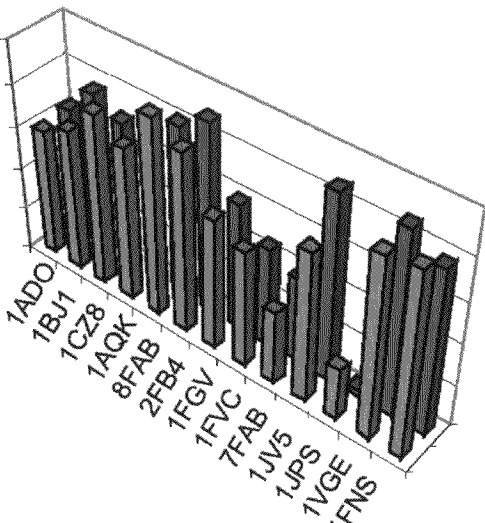


FIG. 4F

REPLACEMENT SHEET

FIG. 4G

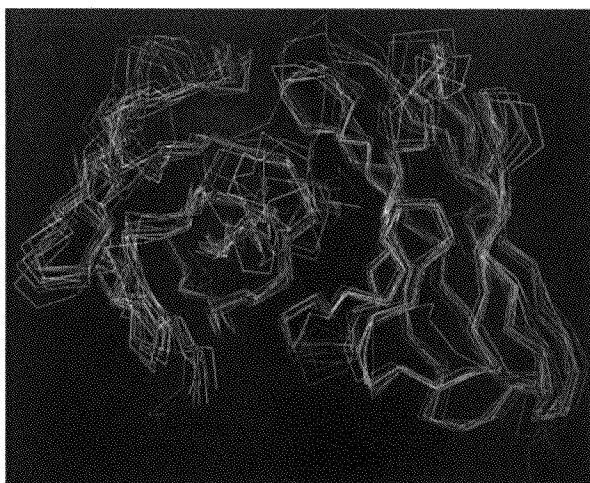


FIG. 4H

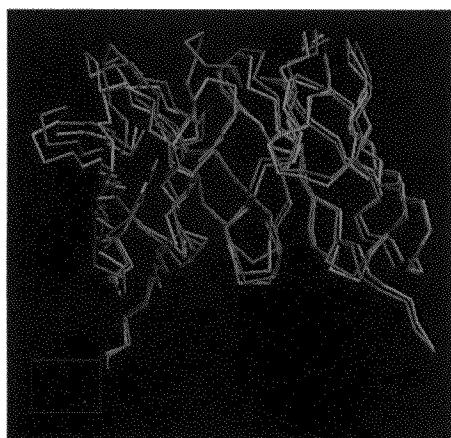


FIG. 4I

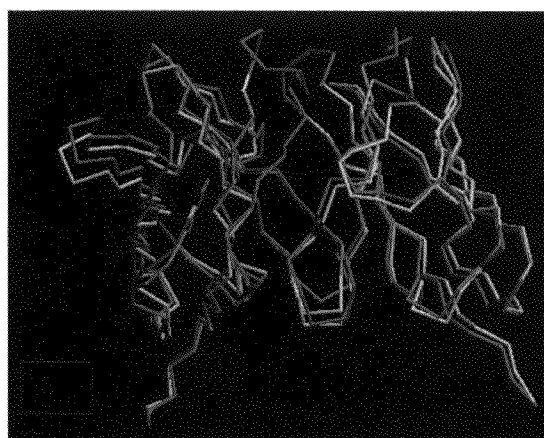
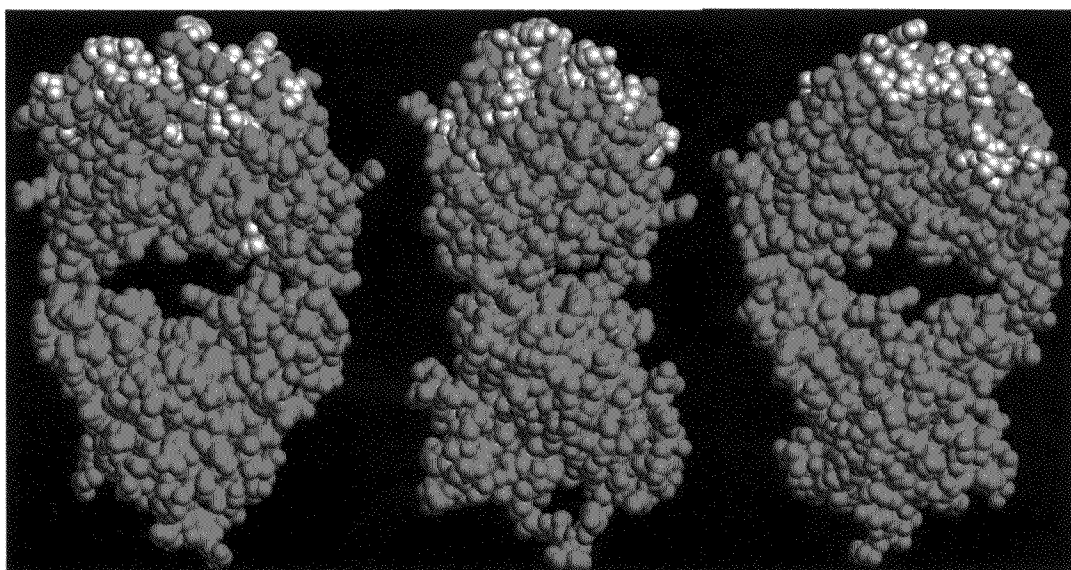


FIG. 4J



REPLACEMENT SHEET

A. Fv fragment of heavy chain

		20	40
MNAC13	DIVLTQSPA	IMASALGEEV	TLTCSASSSVSYMHWYQQKSGTSPKLLIYTTSNL
1AD0	QTVLTQSP	SSLSVSVGDRVTIT	CRASSSVTYIHWHYQQKPG LAPKSLIYATSNL
Hum MNAC13	DIVLTQSP	SSLSASVGDRVTIT	<u>CSASSSVSYMHWYQQKPGQAPKLLIYTTSNL</u>
	60	80	100
MNAC13	ASGVPSR	FSGSGSGTFYSL	TISSVEAEDAADY YCHQWSSYPWTFGGG TKLEIK
1AD0	ASGVPSR	FSGSGSGTDYTFT	ISSLQPEDATYYCQHWSSKPPTFGQGTKVEVK
Hum MNAC13	ASGVPSR	FSGSGSGTDYTL	TISSLQPEDVATYYCHQWSSYPWTFGGG TKVEIK

REPLACEMENT SHEET

FIG. 6

A. Fv fragment of heavy chain

	20	40
α D11	QVQLKESGPGLVQPSQTLSTCTVSGFSLTNNNVNWVRQATGRGLEWMGGVWAG-G	
1JPS	EVQLVESGGGLVQPGGSLRLSCAASGFNIKEYMHVVRQAPGKGLEWVGLIDPEQG	
Hum α D11	EVQLVESGGGLVQPGGSLRLSCAAS <u>GFSLTNNNVNWVRQAPGKGLEWVGGVWAG-G</u>	
	60	80 100
α D11	ATDYN SALKSRLTITRDTSKSQVFLKMHS LQSEDTATYYCARDGGYSSSTLYAMD	
1JPS	NTIYDPKFQDRATISADNSKNTAYLQMNSLRAEDTAVYYCARDTAA-----YFD	
Hum α D11	<u>ATDYN SALKSRFTISRDN</u> SKNTAYLQMNSLRAEDTAVYYCARDGGYSSSTLYAMD	
α D11	AWGQGTTVTVSA	
1JPS	YWGQGLVTVSS	
Hum α D11	<u>AWGQGLVTVSS</u>	

B. Fv fragment of light chain

	20	40
α D11	DIQMTQSPASLSASLGTVTIECRASEDIYNALAWYQQKPGKSPQLLIYNTDTL	
1JPS	DIQMTQSPSSLSASVGDRTTITCRASRDIKSYLNWYQQKPGKAPKVLIIYATSL	
Hum α D11	DIQMTQSPSSLSASVGDRTTIT <u>CRASEDIYNALAWYQQKPGKAPKLLIYNTDTL</u>	
	60	80 100
α D11	HTGVPSRFRSGSGGTQYSLKINS LQSEDVASYFCQHYFHYPRTFGGGTKLELK	
1JPS	AEGVPSRFRSGSGGTDYTLTISSLPEDFATYYCLQHGESPWTFGQGTKVEIK	
Hum α D11	<u>HTGVPSRFRSGSGGTDYTLTISSLPEDFATYFCQHYFHYPRTFGQGTKVEIK</u>	

FIG. 7

A) MNAC13 VL

GAC ATT GTT CTC TCC CAG TCT CCA GCA ATC ATG TCT GCA TCT CTA GGG GAG GAG ATC ACC CTA ACC TGC AGT GCC AGC
 TTG AGT GTA AGT TAC ATG CAC TGG TAC CAG CAG AAG TCA GGC ACT TCT CCC AAG CTC TTG ATT TAT ACT ACA TCC AAC
 CTG GCT TCT GGA GTC CCT TCT CGC TTC AGT GGC AGT GGG TCT GGG ACC TTT TAT TCT CTC ACA ATC AGT AGT GTG GAG
 GCT GAA GAT GCT GCC GAT TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG TTC GGT GGA GGC ACC AAG CTG GAA
 ATC AAA

B) MNAC13 VH

GAG GTG AAG CTG GTG GAG TCT GGG GGA GGT TTA GTG CAG CCT GGA GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA
 TTC ACT TTC AGT ACC TAT ACC ATG TCT TGG GCT CGC CAG ACA CCA GAG AAG AGG CTG GAG TGG GTC GCA TAC ATT AGT
 AAA GGT GGT AGT ACC TAC TAT CCA GAC ACT GTA AAG GGC CGA TTC ACC ATC TCC AGG GAC AAT GCG AAG AAC ACC
 CTG TAC CTG CAA ATG AGC AGT CTG AAG TCT GAG GAC ACG GCC TTG TAT TAC TGT GCA ACA GGG GCT ATG TAT GGT AAC
 GAT TTT TTC TAT CCT ATG GAC TAC TGG GGT CAA GGA ACC TCA GTC ACC GTC TCC TCA

REPLACEMENT SHEET

C) MNAC13 GRAFTED VL

5' D I V L T Q S P S S L S A S V G D R V T I T C S
 OLIGO L1S 3'
 ACA GGC GTG CAC TCC GAC ATT GTT CTC ACC CAG TCT CCA TCC AGC CTG TCT GCG TCT GTC GGG GAC CGG GTC ACC ATT
 CAG CCC CTG GCC CAG TGG TAA TGG ACG TCG 5'
 3'

A S S S V S Y M H W Y Q Q K P G K A P K L L I Y T T S N L
 OLIGO L3S 3'
 TGG TAC CAG CAG AAG CCA GGC AAG GCT CCC AAG CTC CTG ATT TAT ACT ACA TCC AAC CTG
 CGG TCG AGA TCA CAC TCA ATG TAC GTG ACC ATG GTC GTC TTC GGT CCG GAC 5'
 OLIGO L2AS 3'

A S G V P S R F S G S G S G T D Y T L T I S S L Q P E D F 3'
 GCT TCT GGA GTC CCT TCT ACC CTC ACA ATC AGT AGT CTG CAG CCT GAA GAT TTC
 CGA AGA CCT CAG GGA AGA GCG AAG TCG CCG TCA CCC AGA CCC TGG CTA ATA TGG GAG TGT TAG TCA TCA GAC 5'
 OLIGO L4AS 3'

A T Y Y C H Q W S S Y P W T F G G G T K V E I K 3'
 OLIGO L5S
 GCC ACC TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG
 ACC TCA TCA ATA GGT ACC TGC AAG CCA CCT CCG TGG TTC CAC CTT TAT TTT GCA CTC ATC TTA TCT 5'
 OLIGO L6AS 3'

AGA TTG AAT 3' 5'

FIG. 7 continued

REPLACEMENT SHEET

D) MNAC13 GRAFTED VH

5' E V Q L L E S G G L V Q P G G S L R L S C A A 3'
 ACA GGC GCG CAC TCC GAG GTG CAG CTG CAG CTG GAG TCT GGG GGA GGT TTA GTG CAG CCT GGA GGG TCC CTG CGC CTC TCC TGT
 3' CCC AGG GAC GCG GAG AGG ACA CGT CGG 5'
 OLIGO H1S
 S G F T F S T Y T M S W A R Q A P G K G L E W V A Y I S K 3'
 5' TGG GCT CGC CAG GCC CCA GGG AAG GGG CTG GAG TGG GTC GCA TAC ATT AGT AAA
 AGA CCT AAG TGA AAG TCA TGG ATA TGG TAC TCG ACC CGA GCG GTC CGG GGT CCC
 3' OLIGO H2AS 5'
 G G G S T Y Y P D T V K G R F T I S R D N S K N T L Y L Q 3'
 5' GGT GGT GGT AGT ACC TAC TAT CCA GAC AAG AAC ACC CTG TAC CTG CAA
 CCA TCA TGG ATG ATA GGT CTG TGA CAT TTC CCG GCT AAG TGG TAG AGG TCC CTG TTG AGC TTC TTG TGG GAC ATG GAC GTT 5'
 3' OLIGO H4AS
 M N S L R A E D S A V Y Y C A R G A M F G N D F F P M D 3'
 5' OLIGO H5S
 ATG AAC AGT CTG CGG GCT GAG GAC AGC GCC GTC TAT TAC TGT GCA AGA GGG GCT ATG TTT
 ACA CGT TCT CCC CGA TAC AAA CCA TTG CTA AAA AAG AAA GGA TAC CTG 5'
 3' OLIGO H6AS
 R W G Q G T L V T V S
 GCG ACC CCA GTT CCT TGG GAC CAG TGG CAG AGG 5'
 3'

FIG. 7 continued

FIG. 7 continued

E) OLIGOS TO SYNTHESIZE MNAC13 VLOLIGO L1S

ACA GGC GTG CAC TCC GAC ATT GTT CTC ACC CAG TCT CCA TCC AGC CTG TCT GCG TCT GTC GGG GAC CCG GTC ACC ATT

OLIGO L2AS

GCC TGG CTT CTG GTA CCA GTG CAT GTA ACT CAC ACT AGA GCT GGC GCT GCA GGT AAT GGT GAC CCG GTC CCC GAC

OLIGO L3S

TGG TAC CAG CAG AAG CCA GGC AAG GCT CCC AAG CTC CTG ATT TAT ACT ACA TCC AAC CTG GCT TCT GGA GTC CCT TCT

OLIGO L4AS

CAG ACT ACT GAT TGT GAG GGT ATA ATC GGT CCC AGA CCC ACT GCC GCT GAA CCG AGA AGG GAC TCC AGA AGC CAG

OLIGO L5S

ACC CTC ACA ATC AGT AGT CTG CAG CCT GAA GAT TTC GCC ACC TAT TAC TGC CAT CAG TGG AGT AGT TAT CCA TGG ACG

OLIGO L6AS

TAA GTT AGA TCT ATT CTA CTC ACG TTT TAT TTC CAC CTT GGT GCC TCC ACC GAA CGT CCA TGG ATA ACT ACT CCA

F) OLIGOS TO SYNTHESIZE MNAC13 VHOLIGO H1S

ACA GGC GCG CAC TCC GAG CTG CAG CTG CTG GAG TCT GGG GGA GGT TTA GTG CAG CCT GGA GGG TCC CTG CGC CTC TCC TGT

OLIGO H2AS

CCC TGG GGC CTG GCG AGC CCA GCT CAT GGT ATA GGT ACT GAA AGT GAA TCC AGA GGC TGC ACA GGA GAG GCG CAG GGA CCC

OLIGO H3S

TGG GCT CGC CAG GCC CCA GGG AAG GGG CTG GAG TGG GTC GCA TAC ATT AGT AAA GGT GGT AGT ACC TAC TAT CCA GAC

OLIGO H4AS

TTG CAG GTA CAG GGT GTT CTT CGA GTT GTC CCT GGA GAT GGT GAA TCG GCC CTT TAC AGT GTC TGG ATA GTA GGT ACT ACC

OLIGO H5S

AAG AAC ACC CTG TAC CTG CAA ATG AAC AGT CTG CCG GCT GAG GAC AGC GCC GTC TAT TAC TGT GCA AGA GGG GCT ATG TTT

OLIGO H6AS

GGA GAC GGT GAC CAG GGT TCC TTG ACC CCA GCG GTC CAT AGG AAA GAA AAA ATC GTT ACC AAA CAT AGC CCC TCT TGC ACA

FIG. 8

A) cd11VL

GAC ATC CAG ATG ACC CAG TCT CCA GCT TCC CTG TCT GCA TCT CTG GGA GAA ACT GTC ACC ATC GAA TGT CGA GCA AGT GAG GAC ATT
TAT AAT GCT TTA GCA TGG TAT CAG CAG AAG CCA GGG AAA TCT CCT CAG CTC CTG ATC TAT AAT ACA GAT ACC TTG CAT ACT GGG GTC
CCA TCA CGA TTC AGT GGC AGT GGA TCT GGT ACA CAA TAT TCT CTC AAG ATA AAC AGC CTG CAA TCT GAA GAT GTC GCA AGT TAT TTC
TGT CAG CAC TAT TTC CAT TAT CCT CGG ACG TTC GGT GGA GGG ACC AAG CTG GAG ATC AAA

B) cd11VH

CAG GTG CAG CTG GTG GAA TCA GGA CCT GGT CTG GTG CAG CCC TCA CAG ACC CTG TCC CTC ACC TGC ACT GTC TCT GGG TTC TCA CTA
ACC AAC AAC AAT GTG AAC TGG GTT CGA CAG GCT ACA GGA AGA GGT CTG GAG TGG AGT GGA GTC TGG GCT GGT GGA GCC ACA GAT
TAC AAT TCA GCT CTC AAA TCC CGA CTG CTG ACC ATC ACT AGG GAC ACC TCC AAG AGC CAA GTT TTC TTA AAA ATG CAC ATG CTG CAA
TCT GAA GAC ACA GCC ACT TAC TAC TGT GGC AGA GAC GGG GGC TAT AGC AGC TCT ACC CTC TAT GCT ATG GAT GCC TGG GGT CAA GGA
ACT TCG GTC ACC GTC TCC TCA

REPLACEMENT SHEET

C) cd11 GRAFTED VL

5' D I Q M T Q S P S S L S A S V G D R V T I T C R 3'
 ACA GGC GTG CAC TCC GAC ATC CAG ATG ACC CAG TCT CCA TCT TCC CTG TCT GCA TCT GTG GGA GAC CGC GTC ACC ATC
 CAC CCT CTG GCG CAG TGG TAG TGT ACA GCT 5'

5' A S E D I Y N A L A W Y Q Q K P G K A P K L L I Y N T D T 3'
 GCA TGG TAT CAG CAG AAG CCA GGG AAA GCT CCT AAG CTC CTG ATC TAT AAT ACA GAT ACC
 CGT TCA CTC CTG TAA ATA TTA CGA AAT CGT ACC ATA GTC GTC TTC GGT TGG 5'
 OLIGO L2AS

5' L H T G V P S R F S G S G S G T D Y T L T I S S L Q P E D 3'
 TTG CAT ACA GGG GTC CCA ACT CTC ACG ATA AGC AGC CTG CAA CCT GAA GAT
 AAC GTA TGT CCC CAG GGT AGT GCT AAG TCA CCG TCA CCT AGA CCA TGT CTG ATA TGA GAG TGC TAT TCG TCG GAC 5'
 OLIGO L4AS

5' F A T Y F C Q H Y F H Y P R T F G Q G T K V E I K 3'
 TTC GCA ACT TAT TTC TGT CAG CAC TAT TTC CAT TAT CCT CGG
 GTG ATA AAG GTA ATA GCA GCC TGC AAG CCA GTT CCC TGG TTC CAC CTC TAG TTT GCA CTC ATC TTA 5'
 OLIGO L6AS

AGA TCT AAC 3' 5'

FIG. 8 continued

REPLACEMENT SHEET

D) cd11 GRAFTED VH

5' E V Q L V E S G G G L V Q P G G S L R L S C A A 3'
 ACA GGC GCG CAC TCC GAG GTG CAG CTG GTG GAA TCA GGA GGT GGT CTG GTG CAG CCC GGA GGG TCC CTG CCG CTC AGC TGC
 CCC AGG GAC GCG GAG TCG ACG CGA CGG 5'

5' S G F S L T N N V N W V R Q A P G K G L E W V G V W A 3'
 AAC TGG GTT CGA CAG GCT CCA GGA AAA GGT CTG GAG TGG GTG GGA GGA GTC TGG GCT
 AGA CCG AAG AGT GAT TGG TTG TTA CAC TCG ACC CAA GCT GTC CGA GGT CCT
 OLIGO H2AS 5'

5' G G A T D Y N S A L K S R F T I S R D N S K N T A Y L Q M 3'
 GGT GGA GCC ACA GAT TAC AAT TCA
 CCT CGG TGT CTA ATG TTA AGT CGA GAG TTT AGG GCT AAG TGG TAG TCA GCG CTG TTG AGG TTC TTG TGT CGA ATG AAT GTT TAC
 OLIGO H4AS 5'

5' N S L R A E D T A V Y Y C A R D G G Y S S S T L Y A M D A 3'
 AAC AGT CTG CCG GCT GAA GAC ACA GCC GTT TAC TAC TGT GCC AGA GAC GGG GGC TAT AGC
 CCG TCT CTG CCC CCG ATA TCG TCG AGA TGG GAG ATA CGA TAC CTA CGG
 OLIGO H6AS 5'

W G Q G T L V T V S S
 ACC CCA GTT CCT TGA GAC CAG TGG CAG AGG AGT 5'

FIG. 8 continued

FIG. 8 continued

E) OLIGOS TO SYNTHESIZE α D11 VLOLIGO L1S

ACA GGC GTG CAC TCC GAC ATC CAG ATG ACC CAG TCT CCA TCT TCC CTG TCT GCA TCT GTG GGA GAC CGC GTC ACC ATC

OLIGO L2AS

TGG CTT CTG CTG ATA CCA TGC TAA AGC ATT ATA AAT GTC CTC ACT TGC TCG ACA TGT GAT GGT GAC GCG GTC TCC CAC

OLIGO L3S

GCA TGG TAT CAG CAG AAG CCA GGG AAA GCT CCT AAG CTC CTG ATC TAT AAT ACA GAT ACC TTG CAT ACA GGG GTC CCA

OLIGO L4AS

CAG GCT GCT TAT CGT GAG AGT ATA GTC TGT ACC AGA TCC ACT GCC ACT GAA TCG TGA TGG GAC CCC TGT ATG CAA GGT

OLIGO L5S

ACT CTC ACG ATA AGC AGC CTG CAA CCT GAA GAT TTC GCA ACT TAT TTC TGT CAG CAC TAT TTC CAT TAT CCT CGG

OLIGO L6AS

CAA TCT AGA ATT CTA CTC ACG TTT GAT CTC CAC CTT GGT CCC TTG ACC GAA CGT CCG AGG ATA ATG GAA ATA GTG

F) OLIGOS TO SYNTHESIZE α D11 VHOLIGO H1S

ACA GGC GCG CAC TCC GAG CTG CAG CTG GTG GAA TCA GGA GGT GGT CTG GTG CAG CCC GGA GGG TCC CTG CGC CTC AGC TGC

OLIGO H2AS

TCC TGG AGC CTG TCG AAC CCA GTT CAC ATT GTT GGT TAG TGA GAA GCC AGA GGC AGC GCA GCT GAG GCG CAG GGA CCC

OLIGO H3S

AAC TGG GTT CGA CAG GCT CCA GGA AAA GGT CTG GAG TGG GGA GGA GTC TGG GCT GGT GGA GCC ACA GAT TAC AAT TCA

OLIGO H4AS

CAT TTG TAA GTA AGC TGT GTT CTT GGA GTT GTC GCG ACT GAT GGT GAA TCG GGA TTT CAG AGC TGA ATT GTA ATC TGT GGC TCC

OLIGO H5S

AAG AAC ACA GCT TAC TTA CAA ATG AAC AGT CTG CGC GCT GAA GAC ACA GCC GTT TAC TAC TGT GCC AGA GAC GGG GGC TAT AGC

OLIGO H6AS

TGA GGA GAC GGT GAC CAG AGT TCC TTG ACC CCA GGC ATC CAT AGC ATA GAG GGT AGA GCT GCT ATA GCC CCC GTC TCT GGC

REPLACEMENT SHEET

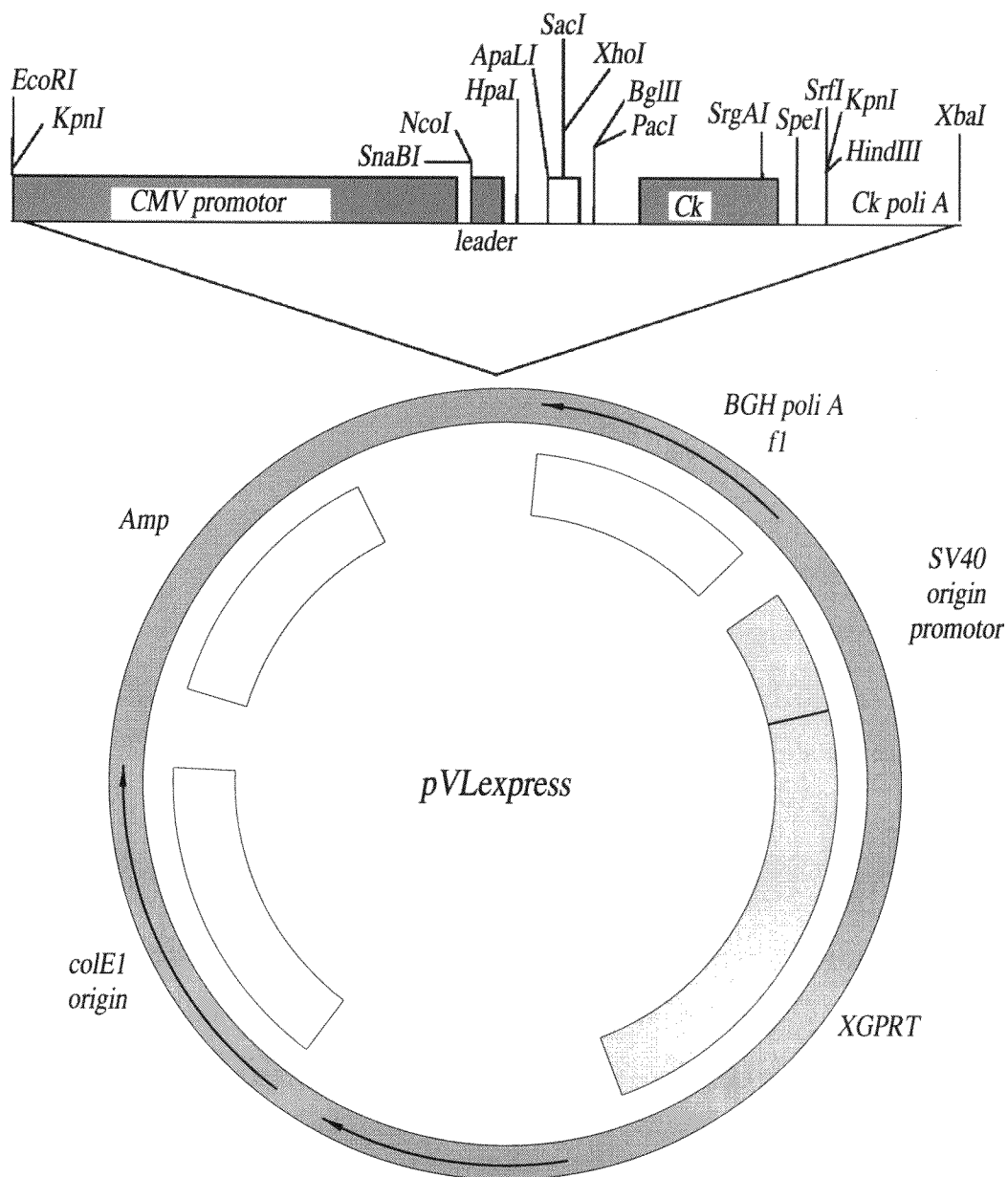


FIG. 9A

REPLACEMENT SHEET

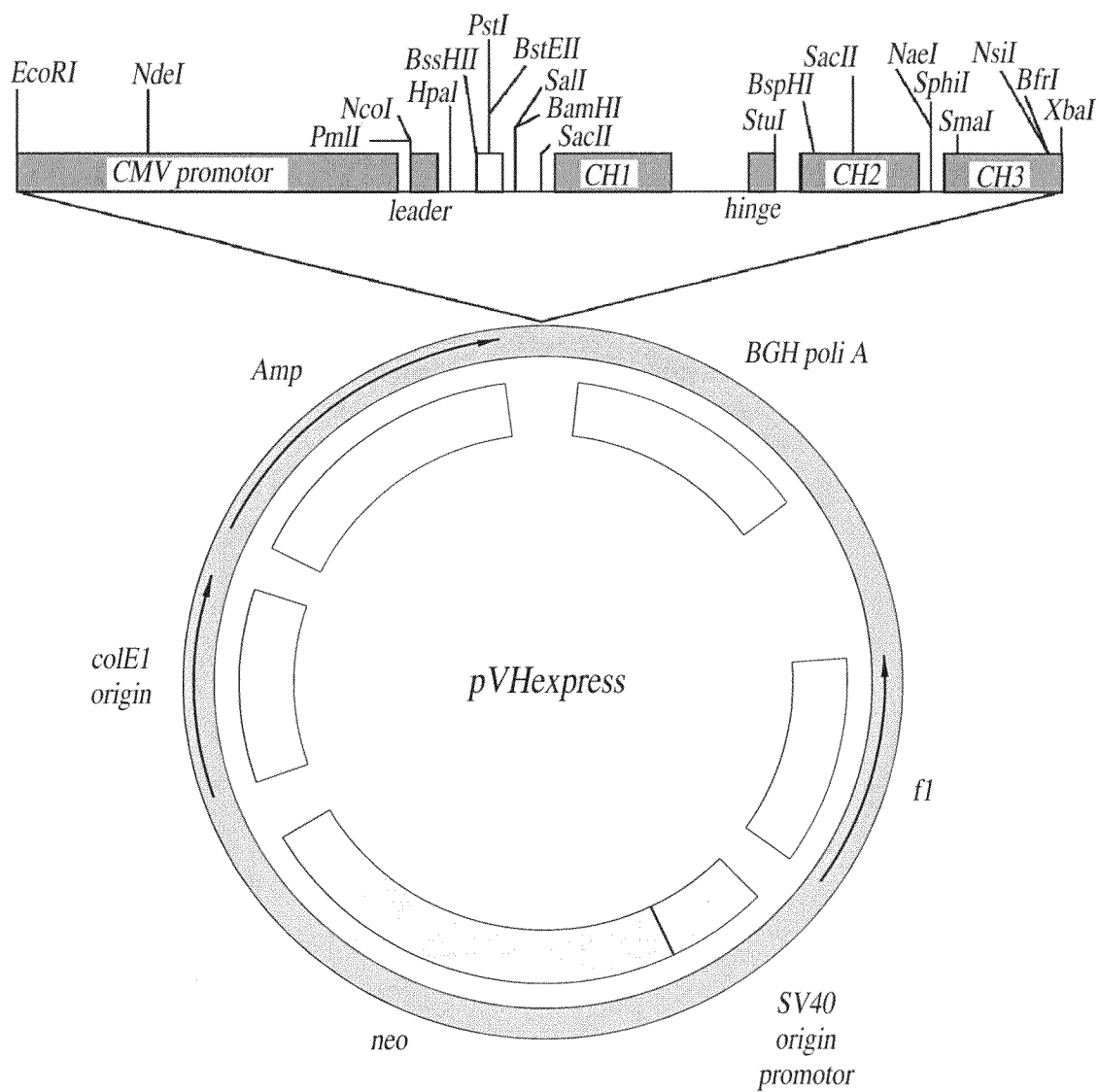


FIG. 9B

REPLACEMENT SHEET

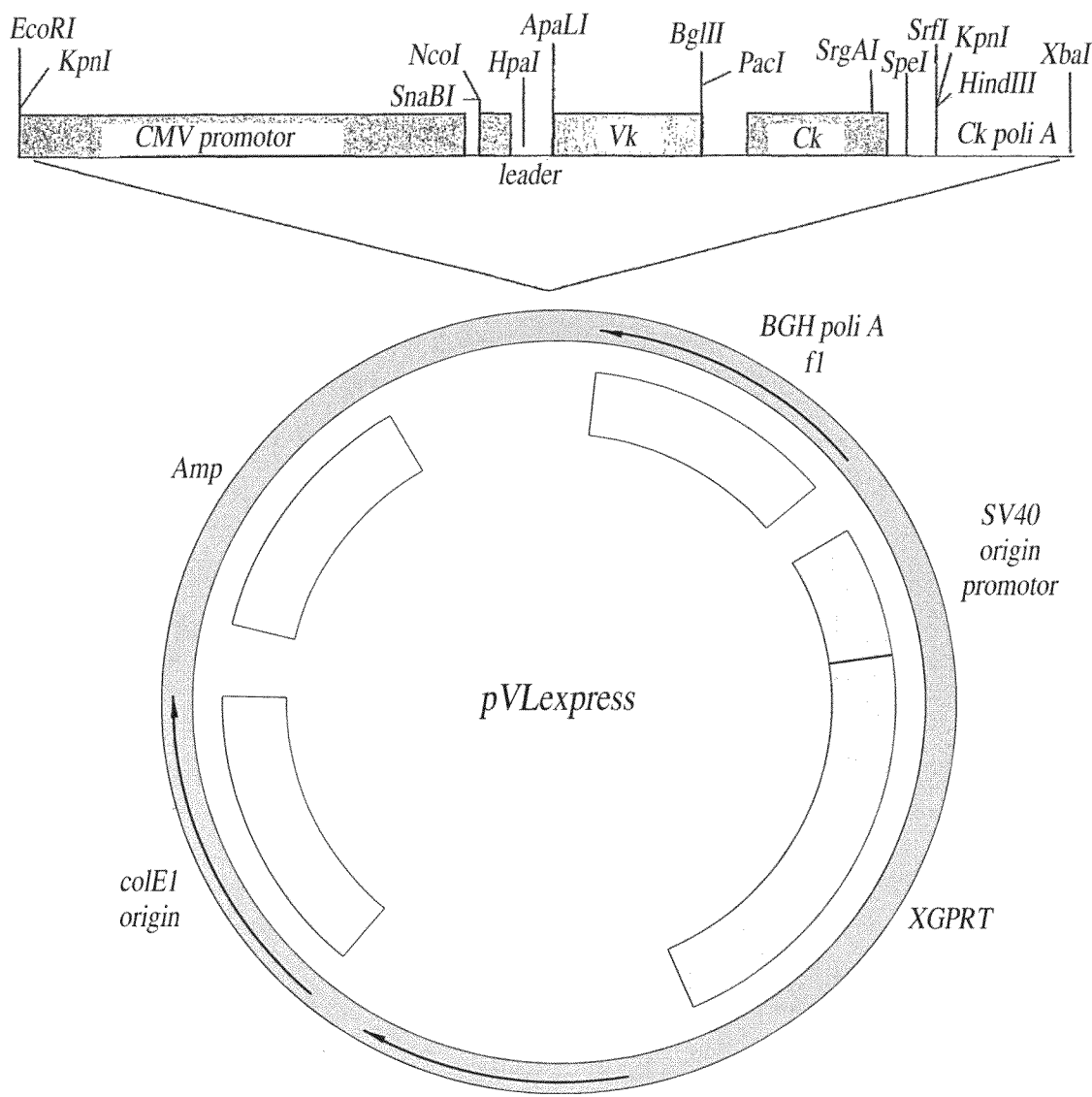
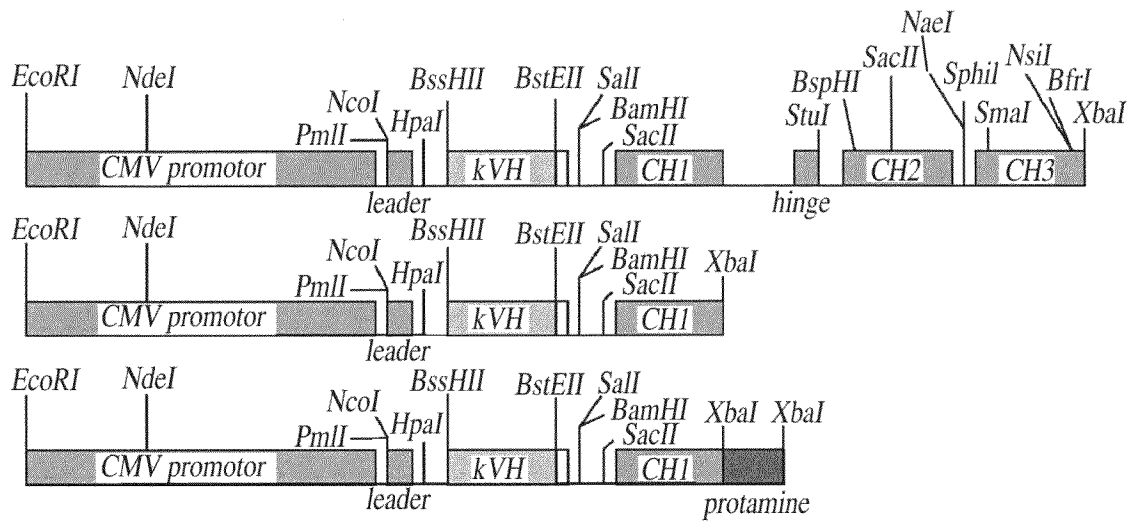


FIG. 9C

REPLACEMENT SHEET



1) o 2) o 3)

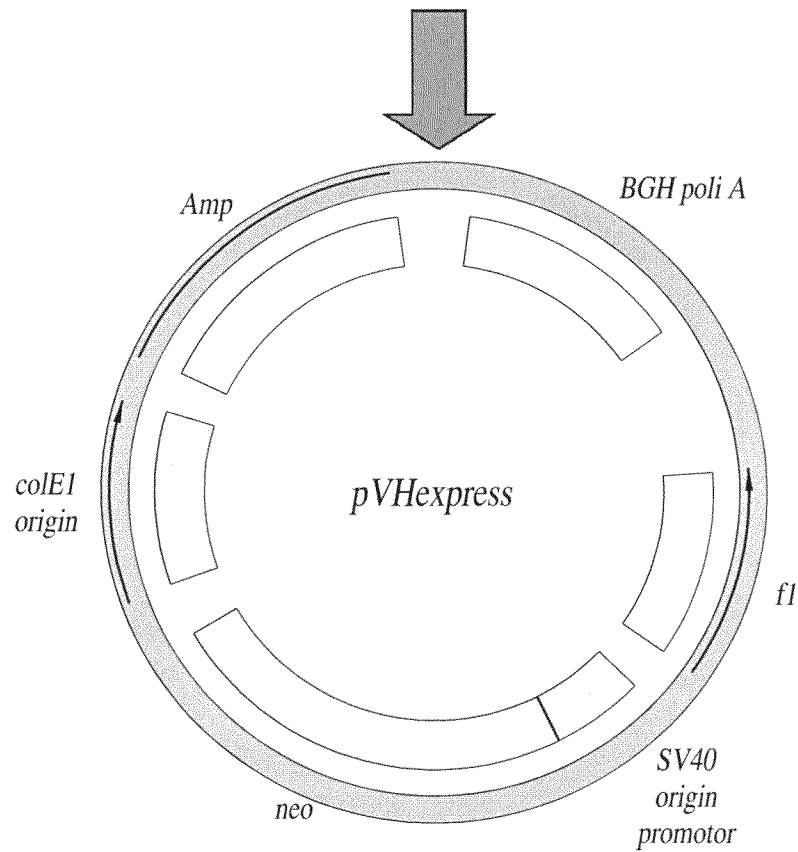


FIG. 9D

REPLACEMENT SHEET

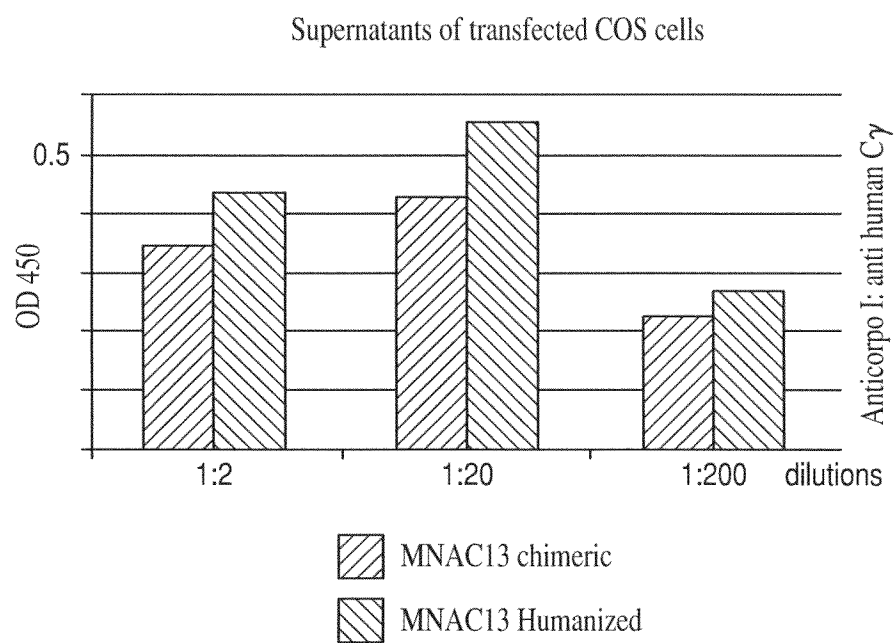


FIG. 10A

REPLACEMENT SHEET

FIG. 10B G protein sepharose purified supernatants of transfected COS cells

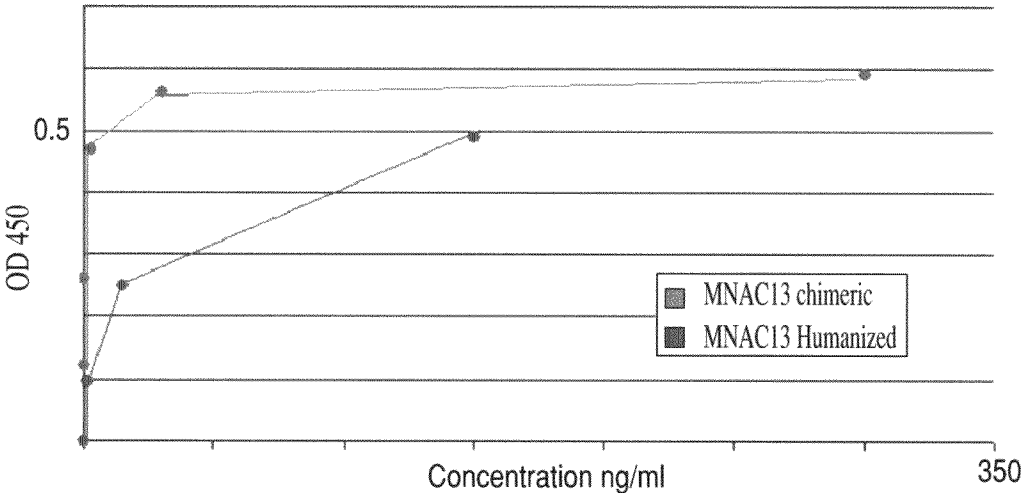


FIG. 10C G protein sepharose purified supernatants of transfected COS cells

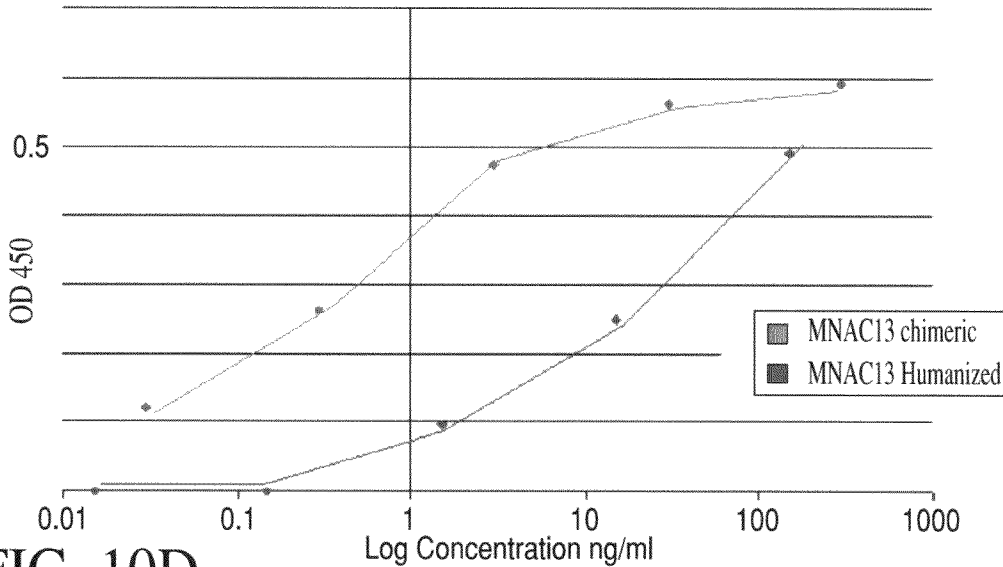
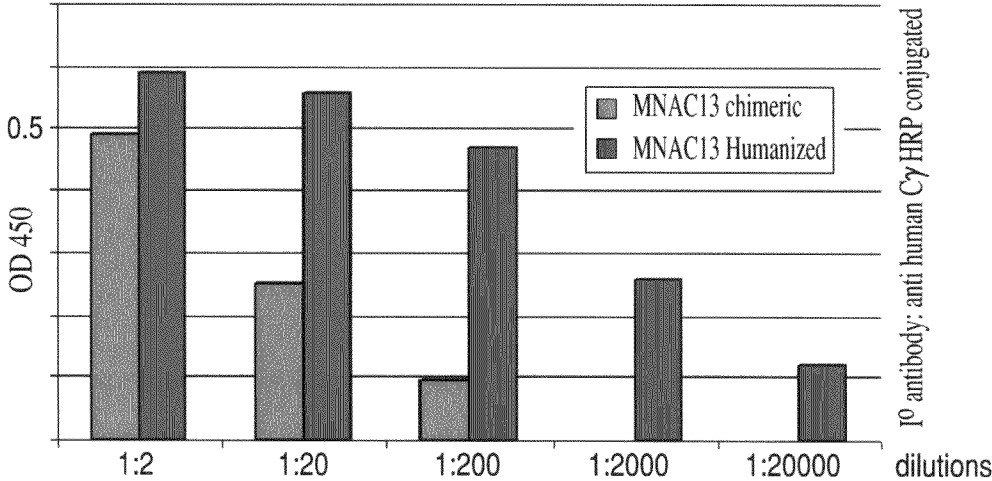


FIG. 10D



REPLACEMENT SHEET

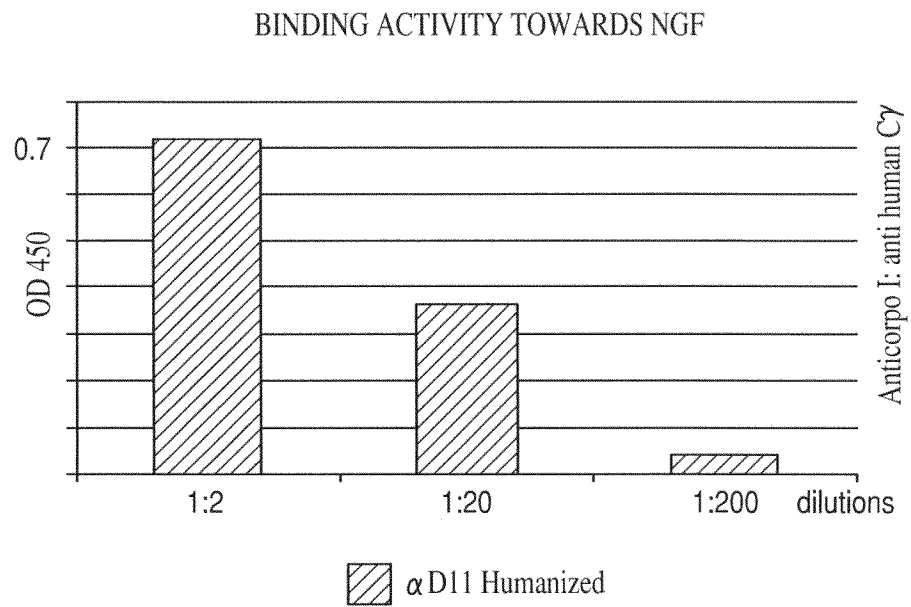


FIG. 11